Remarks

1. The present response is to the Office Action mailed the above-referenced case on April 30, 2008. Claims 1 and 18 are presented for examination.

The examiner states:

Newly submitted claim 35 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: This application contains claims directed to the following patentably distinct species:

Species I: Directed toward determining a QoS level to be offered to a client based on an expectation of future profit. (Claims 1 and 18)

Species 11: Directed toward selecting a customer service agent to handle a customer session based on an expected profit contribution from the session. (Claim 35)

The species are independent or, distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Currently, no claim is generic.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 35 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Applicant's response

Applicant herein cancels claim 35.

Priority

The validity of the claim of priority to application no. 09/127,284 as a continuation-in-part application is questioned since there is no common inventor. Grigory Shenkman is listed as the sole inventor of parent application no. 09/127,284 and Laurent Philonenko is listed as the sole inventor of the instant application.

Furthermore, the instantly claimed invention is not fully disclosed in the parent application; therefore, the currently presented claims will be granted a priority date of February 8, 2002 (i.e.. the filing date of the instant application) for purposes of examination.

Applicant's response

Applicant agrees with the Examiner's position regarding priority of the instant application to February 8, 2002.

Claim Rejections - 35 USC § 112

Claims 1 and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant's response

Applicant herein amends claim 1 and 18, extensively. Applicant believes the claims, as amended, comply with the written description requirement. Therefore, the 112 rejection should be withdrawn.

Claim Rejections - 35 USC §103

Claims 1 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamura (JP 10-51445 A) in view of Levy et al. (US. Patent No. 5,291,550), and further in view of Walker et al. (U.S. Patent No. 6,088,444). (A human-machine assisted translation, obtained from the web site of the Japanese Patent Office, has been provided. Additionally, the manual translation is incorporated into the Office action to provide further clarification for the human-machine assisted English translation of Iwamura (JP 10-51445 A), previously provided to Applicant.)

Iwamura discloses a quality of service (QoS) implementation system for a client requesting a communication session with a session host, comprising:
[Claim 1] a control node of the session host connected to the system for receiving a session request from the client and for soliciting client data associated with the request (Detailed Description: ¶18 -- The user sends a QOS demand to the network);

a data storage system for storing client data (Abstract; 1 22; Detailed Description: ¶ 24-25 -- History data is stored. Furthermore, a user's conformance with a traffic agreement is assessed, thereby implying that such a traffic agreement is stored for future reference);

a processor for comparing solicited client data to stored client data and for determining a quality of service option from more than one available option (Detailed Description: ¶ 24-25 -- If a user has met the conditions of a traffic agreement, then the demanded QOS is maintained and guaranteed. Otherwise, e.g., if the user has insufficient funds, the demanded QOS is not maintained and/or guaranteed); and an option execution module for executing the selected quality of service option for application to the session (Detailed Description: ¶ 24-25 -- If a user has met the conditions of a traffic agreement, then the demanded QOS is maintained and guaranteed. Otherwise, e.g., if the user has insufficient funds, the demanded QOS is not maintained and/or guaranteed);

characterized in that upon receiving a session request at the control node, the control node solicits data from the request and accesses the data storage system to

compare the solicited data with data stored therein and wherein depending on the results of data comparison, determining at least an expectation of future benefit, a QoS level appropriate to the criteria governing the comparison is selected and executed for application to the granted session (Detailed Description: ¶¶24-25 -- If a user has met the conditions of a traffic agreement, then the demanded QOS is maintained and guaranteed. Otherwise, e.g., if the user has insufficient funds, the demanded QOS is not maintained and/or guaranteed. A person who has the funds to pay for services rendered and pays accordingly can be interpreted as being a more profitable customer than someone who does not have the funds to pay for services rendered and therefore cannot pay for such services. The service provider is expected to reap greater benefit from a user who can pay for a granted session as opposed to a user who cannot pay for the granted session, which is why the service provider guarantees better service to the more financially solvent user. Since a determination of expected benefit is only a prediction, there is no requirement that the prediction be 100% accurate; instead, it is a reasonable guess anticipating future behavior, which is an assumption made by Iwamura when deciding which QOS level to maintain and/or guarantee for each user based on the user's financial situation).

Regarding claim 1, Iwamura suggests that the expectation of benefit is profit based (Detailed Description: ¶¶ 24-25 -- If a user has met the conditions of a traffic agreement, then the demanded QOS is maintained and guaranteed. Otherwise, e.g., if the user has insufficient funds, the demanded QOS is not maintained and/or guaranteed. A person who has the funds to pay for services rendered and pays accordingly can be interpreted as being a more profitable customer than someone who does not have the funds to pay for services rendered and therefore cannot pay for such services), yet Iwamura does not expressly disclose that the session request received from the client is a request for an agent of a session host nor that the expected future benefit is determined as a result of the session. However, Levy makes up for these deficiencies in its teachings of a call center in which callers are economically routed to an agent based on various factors, such as if the caller or call center is willing to pay the extra cost of routing to a remote location or factors regarding the expected profit and cost attributed to the call

center's session associated with answering a caller's call (abstract; col. 3, line 46 through col. 4, line 34). As a preliminary note, it should be pointed out that Levy's "customer" is the customer of the call distributor, i.e., Levy's "customer" is contracting services from the call distributor to route calls from its call originators. Levy's routed calls come from call originators. Based on the nature of a call and real-time variables, such as the network load conditions, the expected revenues and costs of a given call are assessed. The analysis of revenues and costs associated with each call yields an understanding of the probable profitability corresponding to each call. Further, the assessment of whether the main purpose of a call is to place an order or receive general information (as taught in the abstract and col. 3, lines 2-3 of Levy) results in a determination of the probable profitability of a call (Levy: abstract). Similarly, Iwamura assesses a quality of service of communication that will be provided and/or guaranteed to users based on each user's ability to pay for the user's desired quality of service (which is suggestive of future profit, since a service provider profits more from paying customers than from customers who fail to pay their bills). As per ¶¶ 24-25 of Iwamura, if a user has met the conditions of a traffic agreement, then the demanded QOS is maintained and guaranteed. Otherwise, e.g., if the user has insufficient funds, the demanded QOS is not maintained and/or guaranteed. A person who has the funds to pay for services rendered and pays accordingly can be interpreted as being a more profitable customer than someone who does not have the funds to pay for services rendered and therefore cannot pay for such services. The service provider is expected to reap greater profitable benefit from a user who can pay for a granted session as opposed to a user who cannot pay for the granted session, which is why the service provider guarantees better service to the more financially solvent user. Both Iwamura and Levy make business decisions that are expected to economically benefit a service provider and each ultimately renders customer service to its users (based on expected profit) accordingly. Additionally, both Iwamura and Levy attempt to minimize expenses to the service provider by controlling the quality of communication service availed to each user who requests service from the service provider. Levy envisions charging a call center for the receipt of calls via 800 numbers as

well as charging for 900 numbers (the charges of which are likely applied to a caller's bill) (col. 3, lines 46-67); therefore, Levy describes a specific environment that would benefit from Iwamura's ability to route communications based on a guaranteed QoS while Iwamura's application to a specific environment would expand the usefulness and marketability of Iwamura's invention. Consequently, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Iwamura to be applied in the area of routing a client to an agent for a communication session such that the session request received from the client is a request for an agent of a session host and the expected future benefit is determined as a result of the session in order to increase the usefulness of Iwamura's invention across various fields (including call center management), thereby making Iwamura's invention more comprehensive and marketable.

As per claim 1, the transaction history is currently recited as being solicited, but it is never used to perform any functionality specifically requiring transaction history, thereby rendering it non-functional descriptive material. For example, the transaction history is solicited with the client data; however, only the client data is actively compared to stored client data to determine a quality of service option. Consequently, the transmission history will not serve to patentably distinguish the claimed invention over the prior art. While Iwamura does not explicitly solicit transaction history, these differences are only found in the non-functional descriptive material and are not functionally involved in the manipulative steps of the invention nor do they alter the recited structural elements; therefore, such differences do not effectively serve to patentably distinguish the claimed invention over the prior art. The manipulative steps of the invention would be performed the same regardless of the specific data. Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability as the claimed invention fails to present a new and unobvious functional relationship between the descriptive material and the substrate, *see In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); In re* Lowry, *32 F.3d 1579, 32*

USPQ2d 1031 (Fed. Cir. 1994)); In re Ngai, 367 F.3d 1336, 1336, 70 USPQ2d 1862, 1863-64 (Fed. Cir. 2004); MPEP § 2106. Nevertheless, Walker tracks customer transaction information and gives his more potentially profitable customers priority in a call center queue based on the customer's transaction history (col. 3, line 64 through col. 4, line 5; col. 6, lines 29-43). According to Walker, giving preferential treatment to more valued customers "would provide the customer with a sense of reward for his business, and might result in additional future business" (col. 6, lines 41-43). While Iwamura bases his decision of which quality of service to guarantee to a customer on the customer's likelihood of paying for the provided service, Iwamura gives preferential treatment to customers who would generally be considered preferred customers (i.e., customers more likely to fulfill their payment obligations compared to customers who are less likely to make full payment). Iwamura, Levy, and Walker have all devised customer service strategies that center around giving better services (or customer service) to more generally preferred customers. By analyzing a customer's transaction history, Walker clearly shows how a service provider's resources can be more effectively managed by focusing the service provider's customer service resources on customers who are more likely to generate a profit for the service provider. Similarly, Iwamura desires to allocate limited network resources such that customers more likely to pay for the more expensive network services will be guaranteed access to these services; therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the Iwamura-Levy combination to solicit transaction history data (e.g., to determine a quality of service to offer to a customer) in order to provide generally preferred customers with a sense of reward for their business, thereby encouraging additional future business (as suggested in col. 6, lines 41-43 of Walker).

Iwamura's determination of future profit is based on some understanding of transport costs; therefore, Iwamura does not explicitly disclose the step of "determining at least an expectation of future profit as a result of the session excluding any impact from transport costs." However, Levy specifically states that "if the criterion is maximizing profit, then calls of the most profitable type may be given preference for completion,

while, during a busy period, some of the less profitable calls are rejected." (Abstract) Levy's expectation of future profit is not based on any impact from transport costs. Both Iwamura and Levy manage their service offerings based on financial considerations; therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Iwamura to determine at least an expectation of future profit as a result of the session excluding any impact from transport costs (e.g., based on expected monetary profit) in order to maximize revenue or profit (as suggested in the abstract of Levy).

[Claim 18] Claim 18 recites limitations already addressed by the rejection of claim 1 above; therefore, the same rejection applies.

Applicant's response

Applicant herein amends claims 1 and 18, the claims, as amended, are reproduced below:

1. A quality of service (QoS) implementation system comprising:

a control node coupled to the system for receiving a session request from a client, for soliciting information directly from the client, and for retrieving transaction history associated with the client from a data storage; and

a processor for applying a formula using the solicited and the retrieved information to determine a profit potential for the session requested, and for selecting a quality of service option from more than one available option based on the determined profit potential.

18. A method for prioritizing quality of service implementation within a data network comprising steps of:

(a) receiving session requests at a control node coupled to the data network from clients for communication sessions with agents of a hosting entity for prioritized quality of service implementation at a control point;

(b) soliciting client data provided directly by the client from the session requests;

(c) retrieving transaction history associated with the client from a data storage;

(d) matching obtained client data and transaction history data to customer resource management data; and

(e) providing a processor applying a formula using the data in step (d) for determining potential profit of the sessions and selecting the appropriate quality of service options for the sessions based on results of the determination.

Applicant points out that the claims, as amended, positively recite implementing a formula to determine potential profit of a received session request. To accomplish the method a router accesses categorized information concerning customer demographics, transaction histories, product preferences and the like, and a processor applies formulas developed to determine a profit potential for each incoming session request.

The method described above is cost conscious and helps companies reduce their costs when doing business with potentially unprofitable customers. It has occurred to the inventor that in addition to reducing costs of doing business by profiling customers and routing accordingly, further cost reduction may be afforded by regulating quality of service (QoS) of an open client DNT session by prescribing one of multiple levels of service based on a determined expectation of profit to the communication center as a result of the session.

Applicant's specification recites; "To accomplish the method a router accesses categorized information concerning customer demographics, transaction histories, product preferences and the like, and applies formulas developed to determine a profit potential for each incoming transaction request. In some embodiments product promotions are included in the process.

The method described above is cost conscious and helps companies reduce their costs when doing business with potentially unprofitable customers. It has occurred to the inventor that in addition to reducing costs of doing business by profiling customers and routing accordingly, further cost reduction may be afforded by regulating quality of service (QoS) of an open client DNT session by prescribing one of multiple levels of service based on expectation of profit/contribution to the communication center as a result of the transaction.

Therefore, what is clearly needed is a method by which QoS controls regulating bandwidth of a DNT connection can be adjusted dynamically in accordance with profitability or expected profitability of the customer account in general including that of the instant transaction according to expected values. A method such as this would provide further cost reduction related to costs of insuring QoS levels by enabling lower levels for transactions that are not contributive in terms of profit to a company. (pages 7-8)"

Applicant points out that although the Examiner has gone to great lengths (and pages) in the present Office Action to explain why providing service to paying customers "collecting revenue" as opposed to non-paying customers reads on the claimed "determining potential profit of a session", applicant's claims now recite the tangible limitation of actually utilizing a processor applying a formula sing data collected from the client making the session request and transaction history of the client from a data repository, to make a determination of potential profit from the session. Therefore, applicant points out the claim limitation, as added, must be shown in the art.

Further, the Examiner states, "As per claim 1, the transaction history is currently recited as being solicited, but it is never used to perform any functionality specifically requiring transaction history, thereby rendering it non-functional descriptive material." Applicant points out that the claims, as amended, now recite that the transaction history is used in a formula for determining potential profit of a session request.

Summary

Applicant believes claims 1 and 18, as amended, are clearly patentable over the art presented by the Examiner. As all of the claims standing for examination have been shown to be patentable as amended and argued above over the art of record, applicant respectfully requests reconsideration, and that the present case be passed quickly to issue. If there are any time extensions needed beyond any extension specifically requested with this response, such extension of time is hereby requested. If there are any fees due beyond any fees paid with this amendment, authorization is given to deduct such fees from deposit account 50-0534.

Respectfully Submitted,
Laurent Philonenko and Grigory Shenkman

By /Donald R. Boys/
Donald R. Boys
Reg. No. 35,074

Central Coast Patent Agency, Inc.
3 Hangar Way, Suite D
Watsonville, CA 95076
(831) 768-1755